Vincent Summerfield

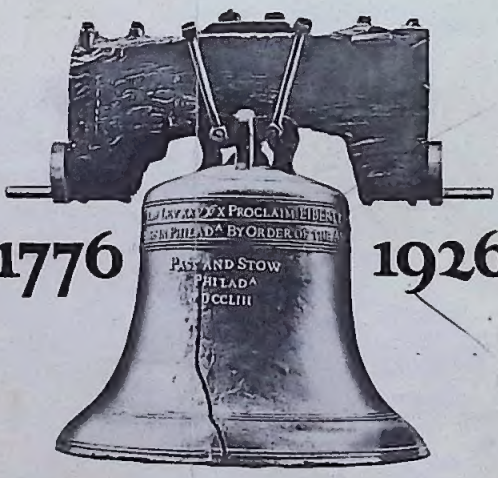
INFORMATION

for the Public and Employes

APRIL 9 THE PENNSYLVANIA RAILROAD SYSTEM 1925

General Offices, Broad Street Station, Philadelphia

The Sesqui-Centennial Philadelphia



1776 1926

150 Years of American Independence

"It is our earnest desire to co-operate to the utmost extent with you, and those associated with you, in the handling of the Sesqui-Centennial celebration."

W. W. Atterbury

Vice-President.

(General W. W. Atterbury, Vice-President of the Pennsylvania Railroad System, to Colonel David C. Collier, Director-General of the Exposition.)

Committee of Pennsylvania Railroad Officers who will co-operate with the Sesqui-Centennial Authorities

J. O. HACKENBERG
(Left)

Superintendent, Philadelphia Terminal Division. Mr. Hackenberg has had twenty-five years experience with the Pennsylvania Railroad System in handling the problems of railroad operation. He is chairman of the committee.

OLIVER T. BOYD
(Below)

General Passenger Agent, Eastern Region. Mr. Boyd was advanced to his present position from a clerkship in the Advertising Department in 1897. He is familiar with every phase of passenger traffic duties and responsibilities.

GUY S. McCABE
(Left)

General Freight Agent, Eastern Region. Mr. McCabe has served in practically every capacity, from messenger up, in freight traffic work, for thirty-six years.

"THE SESQUI-CENTENNIAL" AT PHILADELPHIA

Pennsylvania Railroad's Plans for Full Co-operation

ON JULY 4, 1926, the United States of America will have completed a century and a half of independent existence. In order that this may be fittingly and patriotically celebrated, an exposition, to be known as "The Sesqui-Centennial," will be held at Philadelphia, the birthplace of American independence, during the summer months of next year.

Honorable W. Freeland Kendrick, Mayor of Philadelphia, has retained, as Director-General of the Exposition, Colonel David C. Collier, who, in a similar capacity, made a notable record of success in the management of the Panama-Pacific Exposition at San Diego, in 1914-15.

President Coolidge has pledged the support and co-operation of the Federal Government, and Governor Pinchot that of the Government of the Commonwealth of Pennsylvania.

The Exposition will be both national and international in scope. Owing to the vast increase in the prestige of the United States as a world power, which has taken place in the last fifty years, the celebration in 1926 promises to rival in interest the famous Centennial held in Philadelphia nearly fifty years ago, when the first century of our Nation's life was rounded out.

The Pennsylvania Railroad is the largest transportation system serving the City of Philadelphia and State of Pennsylvania, and is the carrier of a very large proportion of the City's traffic, both passenger and freight. It therefore has a more vital interest in the success of the Exposition than has any other railroad.

The Company's management, accordingly, has assured Mayor Kendrick and the Exposition authorities of its fullest sympathy with the purposes and objects of the celebration. The Company's wholehearted co-operation has been pledged in all respects, from the physical handling of the traffic to aid in spreading the fame of the Exposition throughout the country by every proper channel available.

To represent the Pennsylvania Railroad Company officially in all future negotiations with the Exposition authorities, the management has appointed a committee consisting of one operating officer, one freight traffic officer, and one passenger traffic officer. Those designated are:

J. O. Hackenberg, Superintendent Philadelphia Terminal Division, Chairman.

Guy S. McCabe, General Freight Agent, Eastern Region.

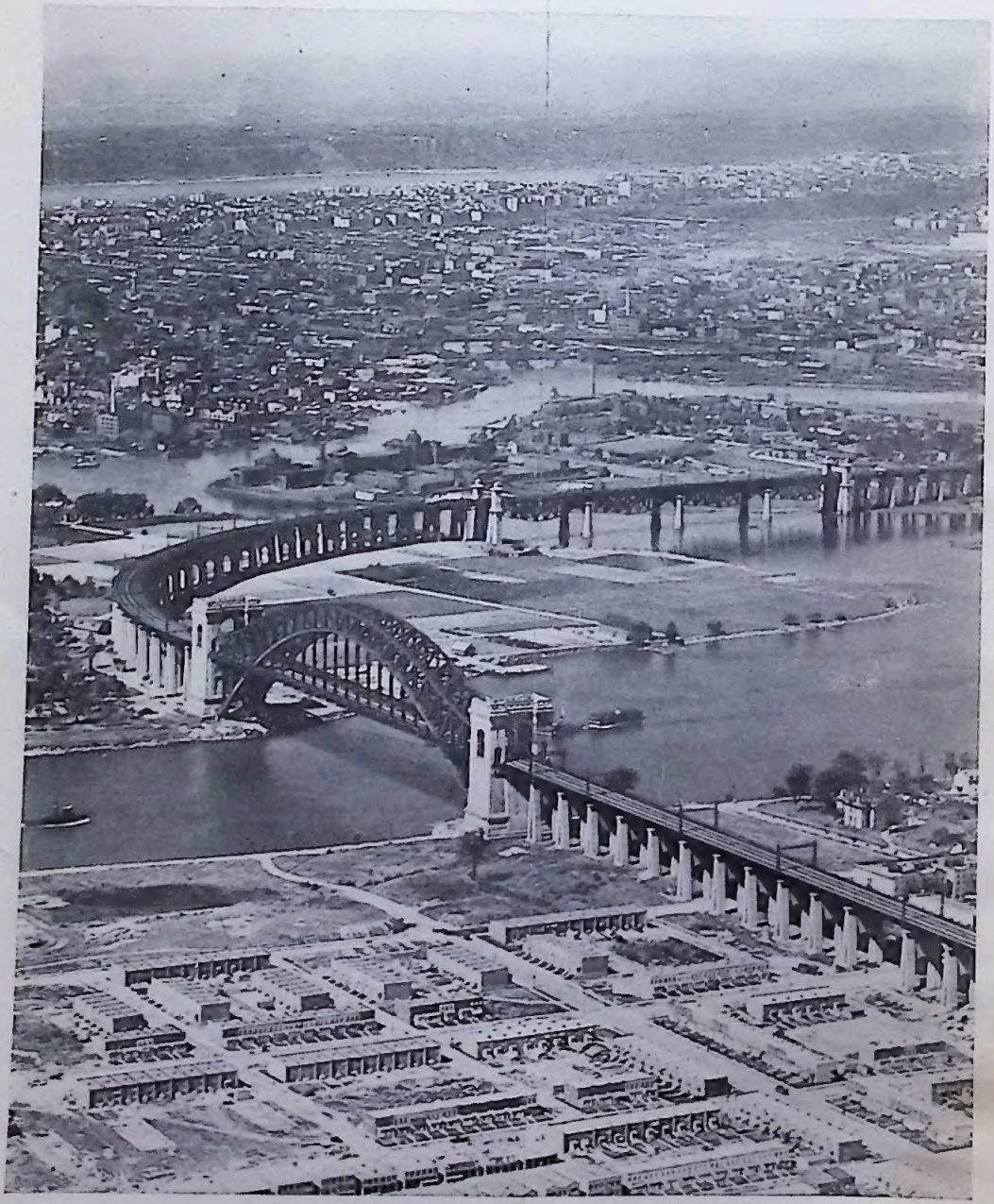
Oliver T. Boyd, General Passenger Agent Eastern Region.

These officers, all of whom have their headquarters in Broad Street Station, Philadelphia, will be in constant touch with the Exposition Management and the Officials of the City of Philadelphia, with respect to the progress and development of Sesqui-Centennial affairs.

It is the desire of the Pennsylvania Railroad management that its officers and employes in all parts of the System should acquaint themselves with the progress of arrangements for the Exposition, its historical significance, and its importance as a builder of traffic for the Pennsylvania Railroad, and should utilize all means coming to their hands for promoting the Company's interests and insuring the success of its policies in these respects.

COLONEL DAVID C. COLLIER
Director General, "The Sesqui-Centennial," Philadelphia, 1926.

Lawyer, business man, exposition planner and manager, and student of American history and growth. Born in a log cabin in a Colorado mining camp, but for most of his life a citizen of San Diego, Cal. Director General of the Panama-Pacific Exposition, San Diego, Cal., 1914-15, and Commissioner General for the United States to the Brazil Centennial in 1922.



Airview by Airmap Corporation of America

ONE OF THE MOST IMPORTANT TRANSPORTATION LINKS IN THE WORLD

The Hell Gate Bridge across the East River, N. Y., which gives New England an all-rail connection with the Middle, Western and Southern States. The span—one thousand feet in length—is the longest steel arch in the world, and at the center rises 320 ft. above the surface of the water. Opened April 1, 1917.

HOW THE PENNSYLVANIA RAILROAD HAS GROWN

Story of Its Development from a Local Line, Planned for Sectional Needs, to a System Rendering National Service

By SAMUEL REA, *President*

(Republished from "Shipper and Carrier," New York City)

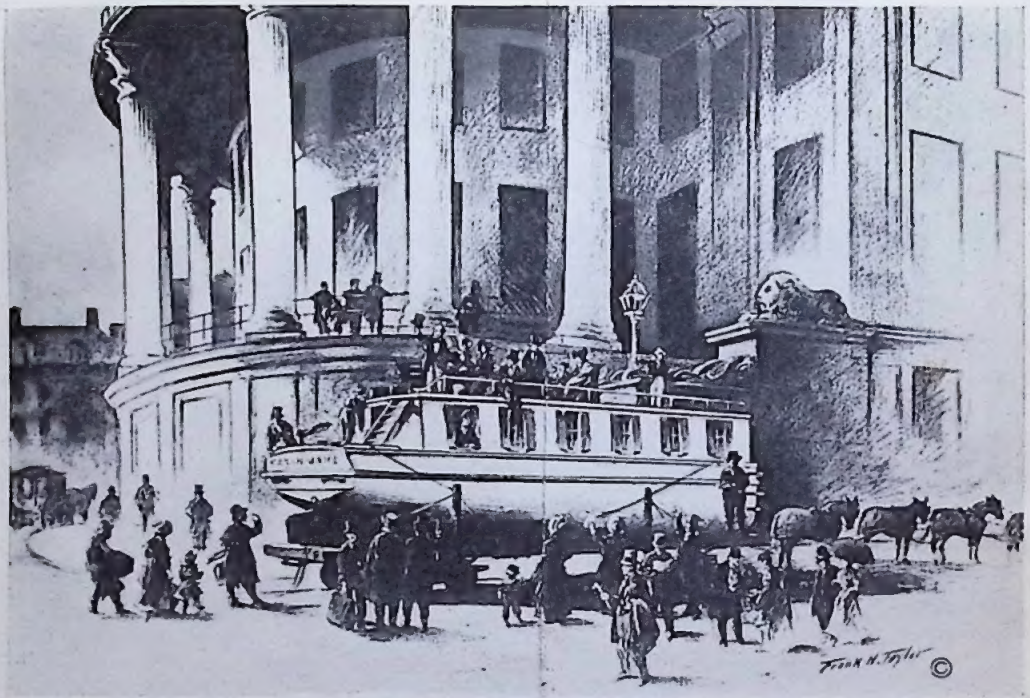
FOR more than a generation the Pennsylvania Railroad System has occupied a position in the transportation field differing in important respects from that of any other system. A few roads have extended their lines to cover a greater area of territory and reach more widely separated terminals. The Pennsylvania, however, has evolved as substantially a completely self-contained system traversing the great central belt of the country, a region not extremely large in area but far more intensively developed than any other within the national boundaries.

Roughly this territory may be described as extending from the Great Lakes and the Canadian Border into the Southern States, and from the Mississippi River to the Atlantic Seaboard. It includes within its limits approximately 50% of the entire population of the United States and a far greater proportion of the country's industrial, commercial and mining enterprises, and, in fact, of practically all agencies for the production and interchange of wealth in every form, including agriculture.

With the growth and upbuilding of this central territory, the Pennsylvania System has been, and still is, more closely identified than any other railroad. The result has been to throw upon its lines a greater volume of traffic, measured in tons of freight and passengers carried one mile, than is handled by any other transportation system, not only in the United States, but in the world. The same is true both as to extent of its physical facilities in the form of road and equipment, and as to the volume of invested capital which these facilities represent. The management has traditionally viewed these facts as serving to measure the extent of the obligations and responsibilities which they entail, to the general public, to the employes of the System, and to the stockholders and other investors whose savings have contributed to its construction and progress.

The Pennsylvania Railroad System at the present time owns and operates 11,672 miles of road and 27,663 miles of total trackage, including double, quadruple and six track, etc., and company sidings. Its lines traverse 13 states and the District of Columbia, the States in question being New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, Ohio, Indiana, Michigan, Illinois, Kentucky and Missouri.

It has thus been said with truth that the Pennsylvania System lines are not only counted among the principal highways joining the East and West, but that north and south they extend from the land of spring wheat to the land of cotton. In fact, the 13 States constituting this territory include, within their limits, practically every range of climatic conditions found in the United States with the exception of sub-tropical and desert, and embrace or border upon practically all of the great historical groupings of the population.



ALL ABOARD FOR PITTSBURGH!—IN 1840

Rear half of sectional canal boat leaving Third and Walnut Streets, Philadelphia (site of the old Stock Exchange Building). These boats, mounted on wheeled trucks, were pulled through the streets by mules or horses, across the old Columbia Avenue Bridge over the Schuylkill River, to what is now Belmont Plateau in Fairmount Park. At this point they were placed upon the Philadelphia and Columbia Railway (which later became the Pennsylvania) and moved by rail to Columbia, Pa. There the sections of the boats were joined and they were placed in the Eastern Division of the Pennsylvania Canal, constructed along the banks of the Susquehanna and Juniata Rivers, and moved to Hollidaysburg, Pa. At this point the boats were removed from the Canal, placed on the Portage Railroad and hauled by eleven inclined planes over the east and west slopes of the Allegheny Mountains to Johnstown, Pa. They were then placed in the Western Division of the Pennsylvania Canal and completed their journey by water to Pittsburgh, the head of navigation on the Ohio River. The journey probably consumed from three days to a week. Charles Dickens in his "American Notes," has left a memorable account of a ride in one of these boats.

In this sense the Pennsylvania may be regarded as the most distinctly American of the trunk line railroad systems and the only one capable of furnishing a truly national scope of service through the medium of its own lines.

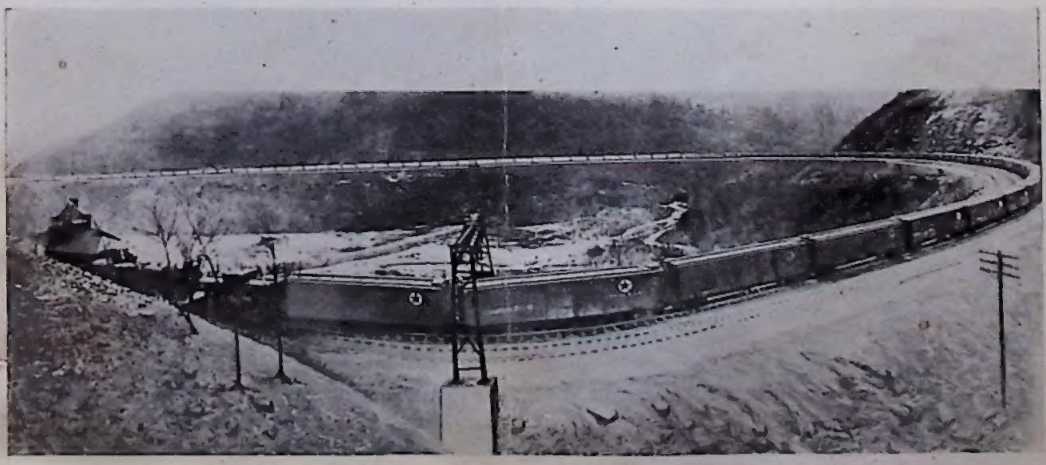
The rolling stock of the Pennsylvania Railroad System, if placed upon a single track would be sufficient to make up a huge train approximately 2,500 miles in length. Included in this train would be 7,647 locomotives, having a total tractive power of 348,000,000 pounds; 255,164 freight cars, having a total carrying capacity of 14,000,000 tons; and 8,190 passenger cars, having a seating capacity of 343,000 persons. Such a train would be capable of carrying, at one loading, the entire cotton and fruit crops and most of the potato crop of the country, produced in a normal year, as well as all the inhabitants of such a city as Minneapolis, New Orleans or Cincinnati.

The investment in road and equipment represented by the Pennsylvania System lines may be stated in round numbers at $2,260,000,000. In addition, other investments are held having a total book value in excess of $157,000,000, making the aggregate investment in the System well over two and one-third billions. The Pennsylvania Railroad Company, the parent corporation of the System, in which substantial ownership of all the subsidiary lines is merged, has at the present time 145,000 stockholders, a larger number than any other railroad company, American or foreign. The average holding is 69 shares

apiece, representing a par value of $3,450. The number of bondholders is not definitely known, as most of the bonds are not registered, but probably exceeds the number of stockholders. The widest distribution of ownership in the Pennsylvania Railroad, however, as is the case with most of our other large systems, is to be found in the great fiduciary institutions of the country, the insurance companies, savings banks, etc., all of them large holders of railroad stock and bonds. Through these mediums the ultimate ownership of the Pennsylvania Railroad properties is, undoubtedly, vested in some millions of individuals.

It may be added that the Pennsylvania Railroad Company has paid to its stockholders a return in every one of its 79 years of existence, constituting the longest unbroken dividend record of any railroad corporation. The rate of dividend has varied from time to time but has averaged about 6%, and is regarded as stabilized at that figure now. The Directors and management consider the payment of fair and reasonable dividends an obligation equal in moral sanction at least to the duty of meeting interest on bonds. This arises from the fact that all the capital stock, when originally issued, was subscribed for at not less than par, and much of it at substantial premiums. The Pennsylvania Railroad as a whole is in fact

Crossing the Alleghenies in 1840. Sectional canal boat being hauled over the inclined planes of the Portage Railroad.



Crossing the Alleghenies in 1925. Hundred-car freight train, west bound, rounding the famous "Horse Shoe Curve."

much under capitalized. As against its total investment of over two and one-third billions in road, equipment and other property, there are outstanding in the hands of the public only approximately one and one-half billions of securities of Pennsylvania Railroad System Companies. This constitutes a striking object lesson in the conservative capitalization of one of the representative American railroad systems.

In 1923, when all facilities were being used to maximum capacity, the Pennsylvania Railroad lines rendered public service equivalent to carrying one ton of freight 49 billion miles and one passenger 6½ billion miles. The freight traffic for that year was the highest ever recorded, exceeding even the peak movements during the most active period of the World War. Passenger traffic, however, made its high record in 1920, with 7 1-3 billion miles. The service rendered in 1923, if divided evenly among all the inhabitants of the United States, would have amounted to carrying a ton of freight nearly 500 miles for each individual, besides giving every man, woman and child in the country a ride of 65 miles.

The number of employes of the Pennsylvania Railroad System has varied considerably in recent years. This has been due to the sharp fluctuations which have taken place in the volume of traffic handled, as well as to many changes in conditions of work and employment. At present there are approximately 207,000 persons on the Pennsylvania Railroad pay roll, including workers of all grades, from the unskilled up to the executive officers. The current wage payments are very close to $1,000,000 a day, and a year or so ago, when traffic was somewhat more active, considerably exceeded that figure.

A general idea of the relative magnitude and extent of the Pennsylvania Railroad System, the volume of its operation, facilities, invested capital, etc., as compared with all the railroads of the United States collectively, may be gained from the following table, showing the Pennsylvania System percentages for 11 salient items:

	Per Cent. of Totals for United States
Miles of Road	4.95
Miles of Track	7.09
Investment in Road and Equipment	10.21
Revenue Ton Miles	11.82
Passenger Miles	17.27
Total Number of Employes	13.18
Total Operating Revenues	12.20
Total Passenger Equipment Cars	15.16
Total Freight Equipment Cars	10.96
Total Locomotives	11.74
Total Tractive Power of Locomotives	13.55

It will be observed that the mileage of the Pennsylvania System is a much smaller proportion of the totals for the United States than are the other figures. This is due, of course, to the reasons already stated, namely, that the Pennsylvania Railroad System is in itself highly developed, and that it operates in the most densely populated sections of the country where such large proportions of the basic industries, the principal coal and other mineral fields, the chief manufacturing centers, and the largest residential communities are located. In addition, it is the principal carrier of the agricultural products of the South to the cen-

De luxe passenger service in the 1840's. A train on the old Camden and Amboy road (now part of the Pennsylvania System) drawn by the celebrated "John Bull" locomotive

America's most famous train of today—The Broadway Limited, the 20-hour all-Pullman express between New York, Philadelphia and Chicago, crossing Rockville Bridge over the Susquehanna River near Harrisburg. From a painting done for the Pennsylvania Railroad.

tral and eastern districts of the country, and is one of the leading highways over which Western products move to the same centers.

These factors have combined to give the Pennsylvania Railroad System an extremely dense traffic, more concentrated indeed than is handled by any other American road. Conversely, there has been necessitated a very high and intensive development of trackage, yards, terminals and all other facilities.

At present the Pennsylvania System has a four to six-track line of railroad between New York and Philadelphia, a distance of 91 miles; a four-track railroad (considerable portions also six-tracked) between Philadelphia and Pittsburgh, a distance of 348 miles; a two to four track railroad between Philadelphia and Washington, a distance of 137 miles; a double-track railroad between Baltimore and Emporium Junction, Pa., a distance of 275 miles; two distinct double track lines between Pittsburgh and Chicago, one the Fort Wayne Route, a distance of 468 miles, and the other the Pan Handle Route, a distance of 506 miles; while large portions of the line between Pittsburgh and St. Louis, a distance of 612 miles, are also double tracked.

There are many other multiple track lines of lesser extent which might be mentioned, but the foregoing cover the principal main arteries of the System. The extent of multiple trackage and the high development of yards and terminals account for the fact that the track mileage of the Pennsylvania System (27,663 miles), is two and one-half times its line mileage (11,672) miles.

The story of the growth of the Pennsylvania Railroad System, from its very small beginnings more than three-quarters of a century ago to the present time, closely parallels the rise of the ideas of American nationalism and unity in place of the sectional rivalries and jealousies of earlier days.

Following the close of the Revolutionary War, and during the first decades of the nineteenth century, the population of what was then the United States was still concentrated almost entirely on or close to a narrow strip of seaboard. The Allegheny Mountains were the frontier. Beyond them the total population was still extremely small, and there were only a few permanent settlements of any considerable size. Even in that day, however, it was quite evident that a new empire was about

A railway road-bed of ninety years ago. Relic of the old Portage Railroad across the Allegheny Mountains, showing the stone ties on which the double tracks were laid. Scene near Hollidaysburg, Pa.

Pennsylvania Railroad standard main-line four-track construction of the present day. Scene on the Middle Division, with the Juniata River on the right

to rise in the West, and the far-seeing men of the time were considering plans and means for its development.

Inland travel and transportation west of the Allegheny Mountains was concentrated largely upon the two great natural systems of waterways, viz., the Mississippi-Missouri-Ohio river system and the chain of the Great Lakes. Access to the navigable inland river system from the East was most conveniently had through the head of navigation on the Ohio, the location of the City of Pittsburgh. Access to the Great Lakes chain was most conveniently had through the eastern end of Lake Erie, where the City of Buffalo stands.

New York, Philadelphia and Baltimore early became particularly keen rivals for the growing and prospective western trade. It was, indeed, due to this situation that the Pennsylvania Railroad Company owed its origin. The Company's charter was granted in 1846, but the movement for its formation was actually begun some years earlier. At that period the trade position and future outlook of the city of Philadelphia had been seriously threatened by two developments. One was the construction of the Erie Canal, connecting the port of New York with the Great Lakes system at Buffalo, and the other the chartering and initial construction of the Baltimore and Ohio Railroad, which was planned to be a continuous rail line from the port of Baltimore to the head of navigation on the Ohio at Pittsburgh.

Philadelphia, meanwhile, had been linked with Pittsburgh by a chain of transportation facilities perhaps as remarkable as any ever known in the world's history. Collectively they were known as the "State Works." From east to west the first link was a rail line from Philadelphia to Columbia, Pa., known as the Philadelphia and Columbia Railroad. This was put under construction in 1828, and completed in 1830, and so far as can be ascertained was the first standard steam railroad to be constructed in the United States. The second part of the State Works was a canal from Columbia up the Susquehanna River to the mouth of the Juniata, and thence along the Juniata to the foot of the Allegheny Mountains at Hollidaysburg, Pa. The third link was known as the Portage Railroad, built across the Alleghenies from Hollidaysburg to Johnstown, Pa. It consisted of rail lines constructed on inclined planes operated by stationary engines and cables, by means of which the rolling stock was pulled up or lowered down over the various ridges and slopes of the Allegheny chain. There were 11 planes in all, and this strange railroad was operated for nearly 20 years without a single serious accident. From Johnstown to Pittsburgh the fourth and last link in the State Works transportation system was again a canal, having its western terminus at the head of the Ohio River

Over this remarkable system of railroads, canals, and inclined planes, canal boats of a special type were operated in a most interesting manner. The boats were built in short sections for convenience in handling and to make their movement overland practicable. On the westbound trip the start was made from various points in Philadelphia, each section of the boat being mounted on wheeled trucks. These were pulled through the streets by mules to the western edge of the city, thence across the old Columbia bridge over the Schuylkill River to the foot of what is now Belmont Plateau in Fairmount Park, where the Philadelphia and Columbia Railroad line had its beginning. The boats were pulled up on to the plateau by an inclined plane and then moved on the rail line to Columbia, where they were placed in the canal and the sections joined together. They were then pulled by mules along the tow-path to Hollidaysburg. At Hollidaysburg the sections were again separated, mounted on wheeled trucks and pulled over the mountains, via the inclined planes and the Portage Railroad, to Johnstown. There they once more entered the water to complete their journey to Pittsburgh by canal.

As may be imagined, the operation of this strange transportation system was cumbersome, slow and uncertain at all times, and, in addition, the canals were closed for several months of the year by ice. Moreover, the entire system was managed by the State Government and early became afflicted with many of the most aggravated forms of political ills which have been inseparable from State management wherever tried. When the State Works were abandoned, some few years after the chartering of the Pennsylvania Railroad, they left behind a debt of some 40 millions of dollars, a stupendous sum for that time. The losses, corruption and inefficiency incidental to the operation of the Pennsylvania State Works should be an everlasting object lesson to the people of the United States against

THE WORLD'S NEWEST G

Union Station at Chicago now nearing completion, built jointly by the Pennsylvania, Burlington and St. Paul Systems. This Station will also be used by the trains of the Chicago & Alton Railroad. Its design includes many new features and improvements—the best of everything that has been developed

governmental ownership of railroads or any other forms of utilities.

In 1830 a group of business men in Lancaster, Pa., then an ambitious country town, started a movement for the construction of an independent railroad line from that city to Harrisburg, Pa. Lancaster was located on the Philadelphia and Columbia Railroad, about two-thirds of the distance from Philadelphia. The Lancaster merchants wanted a shorter cut by rail to the canal system, which would give them easier access to and from the interior of the State. The proposed line was chartered in 1832 and completed a few years later as the Harrisburg, Portsmouth, Mt. Joy and Lancaster Railroad. While originally a local enterprise and intended to be only of very limited scope, it was destined to play a great part in railroad history because it resulted in the formation of a continuous and direct rail line between Harrisburg and Philadelphia, and today forms an extremely important section of the main line of the Pennsylvania Railroad System.

While this Lancaster-Harrisburg line was under construction, dissatisfaction with the canal system continued to grow among the commercial leaders and interests of Philadelphia and it became increasingly apparent that the trade of the city could only be protected from the aggressive competition on the north and south by substituting a through rail

EAT PASSENGER TERMINAL

by architectural and engineering science for comfort and efficiency in handling a vast passenger traffic. The construction of this Station, with its approach tracks practically through the heart of Chicago, involved difficulties in some respects greater than those ever before encountered in a similar undertaking.

line between Harrisburg and Pittsburgh, in place of the combined canal and Portage Railroad system. This, in connection with the rail route between Harrisburg and Philadelphia, would give a continuous rail line between Philadelphia and Pittsburgh, in that manner linking the two principal cities of the State and providing Philadelphia with a direct outlet upon the head of navigation of the Ohio River, the leading highway into the new West.

In this vision was found the inception of the Pennsylvania Railroad and it was for the purpose of bringing it to realization that the Company received its charter on April 13, 1846. Actual construction was begun shortly afterwards, and in 1852 the through rail line was actually opened from Philadelphia to Pittsburgh, using the old Portage Railroad temporarily. In the following year, 1853, the gross receipts of the then existing Pennsylvania Railroad were $2,774,889, which far exceeded the expectations of the time. It is rather interesting to note that under modern conditions of peak traffic such a sum represents merely the average gross earnings of the Pennsylvania Railroad System about every 31 hours.

It will thus be seen, from this brief review, that in its inception the Pennsylvania Railroad was purely a local project, promoted merely as a protective measure for safeguarding and fostering the trade interests of Philadelphia against the competition of neighboring ports

Pennsylvania Railroad standard heavy-duty passenger engine (Class K-4s)

Its subsequent evolution into a national medium of transportation was quite naturally a gradual process, extending over a period of a good many years. Through the acquisition of other roads independently started, and supplemented by the construction of new lines when necessary, the System was extended southward to Washington, eastward to New York and the New Jersey Coast, westward to Chicago and St. Louis, northward to the Great Lakes and southward to various important gateways of the Ohio and Potomac Rivers.

During the period following the close of the Civil War the main skeleton of the Pennsylvania System had grown to assume pretty much of its present appearance. The extension of the System's lines from Philadelphia and Wilmington to the Norfolk gateway was a development of the 1880's. The New York terminal project, carrying the lines of the Railroad under the Hudson River into and through the center of New York City, was consummated in 1910. Its correlated project, the completion of the Hell Gate Bridge Route, in co-operation with the New Haven System, giving the Pennsylvania lines a direct through route between the middle, western and southern States and New England, was completed in 1916. The most recent extension project of importance has been the entrance of the Pennsylvania lines into the city of Detroit, consummated in 1923.

To-day the Pennsylvania Railroad System serves impartially the three cities whose early trade rivalries were the original cause of its inception, namely, New York, Philadelphia and Baltimore. Large railroad systems are no longer themselves parties to the competition between communities. The competition of cities and producing centers still exists and doubtless will always continue to exist, but the railroads themselves must render absolutely impartial service to all points which they reach. There also is, and will continue to be, competition between railroad systems, but that form of competition must be and is kept entirely distinct from the competition of communities. These are extremely important fundamental principles in connection with the movements for railroad consolidations now under way.

Some 20 years ago the Pennsylvania Railroad acquired a controlling stock interest in the Norfolk and Western Railway and has since shared in its administrative policies. During this period the Norfolk and Western has achieved a position of sound financial credit. In this manner there has been created a relationship of the utmost importance in connection with the contemplated steps toward railroad consolidations.

Consolidation of the existing rail lines of the country into a limited number of large systems, for the purpose of simplifying corporate organizations, improving the character of service and maintaining the necessary stimulus of competition, will undoubtedly be the next great development in the history of American

Pennsylvania Railroad standard heavy-duty freight engine (Class I-1s)

railroads. The Pennsylvania System, including the Norfolk and Western, by reason of its extent, the character of the territory which it serves, and its highly developed traffic, comes nearer to being a completely integrated system than any other now existing. However, to round it out fully a north and south link is needed in the extreme western portion of the System, which is best represented by the Chicago and Eastern Illinois. At the same time, to enable it to play its proper part in the anthracite trade and other eastern traffic, it should have such lines as the Lehigh and New England, and the Lehigh Valley. Also to have equality with the other Systems, it should have trackage rights or build a new line along Lake Erie so as to serve the cities it now reaches through what might be called a "saw tooth" system of lines. These provisions, together with the retention of the Norfolk and Western, augmented by at least a half interest in the Virginian Railway, constitute the chief features of a well thought out scheme of consolidation in so far as the future of the Pennsylvania Railroad System is concerned.

In this connection it may be of interest to know that the Pennsylvania management has at all times been working in the direction of consolidation in so far as State and Federal laws and charter provisions permit. The lines constituting the present Pennsylvania System embraced originally over 600 distinct corporations. These have been reduced in number to about 139 of which 109 may be classed as active and 30 as inactive. Further progress is being made in this direction as rapidly as circumstances permit, and it may be added that the Pennsylvania System management is heartily in favor of the general principles and purposes of consolidation provided they are carried out in a properly considered manner. The future progress and prosperity of the Pennsylvania and all other systems, together with their ability to render satisfactory service and keep abreast of the country's needs, largely depends upon intelligent and broadly conceived action in these directions.

These suggestions of course rest upon the assumption, which is by no means to be taken as necessarily final, that instead of allowing consolidations to proceed along the natural courses that have been followed heretofore, the time has now come arbitrarily to lay down four systems for the eastern railroads. But it is by no means certain that such a plan will receive approval and the whole subject needs much more careful thought as to the effect upon trade and commerce, and traffic relations, than has yet been given to it.

Railroading, however, is still in its infancy and there is much to be accomplished through electrification, improved terminals, etc. With the growth in the use of motor cars and the building of new highways, the time may arrive when railroad systems will consist mainly of the trunk lines and improved terminals and the branch line traffic will be handled by the motors. In any event the future progress of

the railroad industry is entirely dependent upon wise and constructive regulation, and the continuance of its development is necessarily contingent upon the roads being permitted to earn a fair return on their investment

SCENIC VIEW OF LEWISTOWN NARROWS

The Pennsylvania Railroad traverses the finest scenery of any Eastern trunk line. This picture shows the Valley of the Juniata River, near Lewistown, Pa.

Airview by Airmap Corporation of America

PENNSYLVANIA STATION IN THE HEART OF NEW YORK

No section of the metropolis has had more remarkable improvement and development than the area surrounding this great terminal since it was opened fifteen years ago.

"SALES ENGINEERING" IN RAILROAD WORK

Relations Between the Traffic and Operating Departments of the Pennsylvania

By
JULIEN L. EYSMANS
General Traffic Manager

From address before the Pennsylvania Railroad Club of Trenton, February 4, 1925.

AT the outset let us get clearly in our thoughts the fundamental idea that railroading is a business. It is often described as a form of public service, which is correct as far as it goes, but does not tell the whole story. It is a form of public service which is conducted by a corporation owned by stockholders and, to be successful, must pay its way and earn a fair and reasonable profit. That makes it a business just as truly and genuinely as the operation of a mill, or a coal mine, or an iron plant, or a newspaper, or a factory are forms of business.

The carrying on of every form of industry will be found to include two main processes. The first is the production of something, and, the second, its sale. Production by itself accomplishes nothing in a business way and of course we cannot sell anything, whether that thing is a physical article or the intangible thing which we call "service," unless it is produced from the materials and forces of nature so that delivery can be made.

A railroad company, therefore, is a business organization, formed and conducted for the purpose of manufacturing and selling transportation. If we always think of it in that light we shall always be on sure ground and it will help everyone of us to understand better and more clearly the nature and purposes of his particular work and duties.

The production end of the railroad business is carried on by what we term the Operating Department. It is that Department's duty to make or manufacture the one and only commodity which we sell, viz:—transportation service, in the quantity and quality required.

The selling of transportation, as produced, and the development of successful sales policies, are functions of the Traffic Department.

The Pennsylvania Railroad System employs at the present time approximately 198,000 officers and men in the Operating Department to produce transportation, and about 2,000 officers and men in the Traffic Department, supervising and directing the sale of transportation. Of these 2,000 Traffic Department men there are, at the present time just 437 who are personally engaged in actual sales work and sales management.

Every Worker Has a Sales Responsibility

This does not mean that 437 men do or could carry on all the selling activities necessary to dispose of the production of 198,000 men. That, of course, would be a physical impossibility. As I expect to show a little later, practically every person in the service of the Company, regardless of his position or Department, has definite duties of salesmanship, particularly in what we may term the retail forms of sales, incident to direct personal contact with patrons. What it does mean, is that this comparatively small group of 437 men manage and guide the general sales policies and methods of a business employing

Ticket sellers have thousands of opportunities daily to make friends for the railroad.

198,000 men in production, and representing a turn over of seven hundred million dollars worth of transportation service a year.

In the beginning I defined the function of the Traffic Department as being that of supervising and directing the selling work and activities of the railroad. I now wish to go a step farther and describe these duties somewhat more precisely.

From the very earliest days of railroading the industry has required the services of professional technical engineers. Civil engineers planned and laid out the original lines and their subsequent extensions, as well as the bridges, tunnels, yards, terminals, etc., required in the operations.

Mechanical engineers invented and developed our locomotives, our freight and passenger cars of various types, and our shops, roundhouses, and other facilities for the production and maintenance of motive power and equipment.

Electrical engineers have given us our signal systems and are devoting their skill and training to solving the problems of electrifying tracks and terminals where required.

In the first generation or two of railroads the questions of technical construction, improvement and development overshadowed all others. In our generation, however, a notable change has come about in this respect. The magnitude of the railroad business and the huge volume of transportation service which must be sold each year, combined with the intricacies of State and Governmental regulation and rate making, have brought us to a point at which the problems incident to the sale of transportation likewise require the services of men correspondingly expert in such matters, who become proficient only after years of study and experience.

Fixing Prices of Railroad Service

Hence, in addition to the engineers of construction, transportation and technique, we now need and, in fact, have actually produced, a type of specialists in the transportation field, who may very properly be termed "engineers of sales and traffic service." I believe, therefore, that the work and functions of our Traffic Department could be very accurately summarized and described by designating it as our "Department of Sales Engineering."

In any form of scientific or organized selling the making of prices is one of the most important phases. In the railroad business the fixing of prices is the exclusive function of the Traffic Department. We do not, however, call them prices, but in the case of freight service "rates" and in the case of passenger service, "fares."

Under the provisions of the law, we may not sell transportation service in any form until we have first publicly established a rate or a fare covering the exact service to be sold. Hence, before transportation service can be manufactured for sale, the rate and fare work of the Traffic Department must pave the way. This involves the establishment, filing and publication, in strictest accordance with all legal provisions, of freight rates and passenger fares, on every conceivable commodity and for all classes of passenger travel:

First, from and to every station on our own lines;

Second, between all stations on our own lines and all stations on all other lines in the United States and Canada;

Third, for traffic passing en route, between foreign lines, over portions of our lines.

Our freight rates and passenger fares, merely between points on our own lines, number literally many millions, while the rates and fares in effect throughout the entire United States and Canada without question must be counted in the hundreds of millions or billions. This gives some idea of the complexities of price-making that are encountered in the sale of transportation service.

Three Cardinal Principles in Rates

In deciding what rates and fares whould be established, the officers of the Traffic Department are guided by three cardinal principles. The first is described by the words so often misunderstood, "What the traffic will bear." This does not mean all the traffic will bear, or all that can be exacted from the shipper in need of transportation. It means the adjustment of rates and fares with reference to the differences in the ability of various classes of traffic to pay, and at the same time on a basis that will encourage the development of the country's commerce and travel.

The second consideration is the question of competition. So long as rates do not fall below what the traffic should fairly and justly bear, such questions as the competition of other railroads and of other means of transportation must be taken into account.

The third principle, which is of paramount importance from the Company's standpoint, is that the rates and fares upon the traffic secured shall provide a revenue sufficient to yield a satisfactory net return upon the capital invested. This, after all, is the greatest responsibility of the Traffic Department

After we have made and published our rates and fares, based upon these principles which I have briefly outlined, the next step must be to train a small army of men to quote our prices anywhere and everywhere. These men include not only the small group of Traffic Department officers, solicitors and representatives, but also a much more extensive number of employes, who also deal directly with the public, such as our station agents and ticket sellers, who may very properly be considered our local salesmen.

Training in Traffic Duties—What They Cover

Although the majority of the latter are carried on the Operating Department payroll and have distinctly operating duties to perform, they also perform traffic or sales duties of the utmost importance. It is incumbent upon the Traffic Department to train them in these duties and to guide them in sound and successful sales policies and methods, including ability to inform the shipping and traveling public in respect to freight and passenger schedules of our own and connecting lines, and

There is salesmanship in answering questions—Information Bureau, Pennsylvania Station, New York City.

the sailings of steamships; to secure the location of new industries on our lines; to settle loss and damage claims; and to perform every and all kinds of traffic service, such as locating cars in transit for reconsignment, tracing cars, obtaining car supply, and other details entering into the sale of transportation service.

The Traffic Department supervises and is responsible for the Company's contact with the public. It is therefore one of the specific duties of all traffic officers and representatives to keep informed as to the transportation needs and requirements of the public and as to the relative quality and character of service offered by competitors of every kind. To keep abreast of the times in these respects, it is manifestly apparent that there must be the closest and most faithful co-operation between the Traffic and Operating Departments, both among officers and supervisory forces, in order that our Company shall never fail to hold its traditional place of leadership among its competitors.

We are living in a day when the people are becoming accustomed to good things and good service, and demand the best more than ever before in the world's history. This is just as true of the consumers of transportation as it is of the users of any other product. Quality more and more is becoming a determining factor in winning and holding patrons.

In the field of passenger service the demand for high quality has been of quite a long standing and is steadily becoming more pronounced. In late years a similar demand has made itself felt just as definitely in the case of freight. Service is the requirement of the day and a railroad which cannot produce "Service" with a capital "S" cannot hope to hold a place of leadership and high prestige.

Courtesy, promptness, regularity and dependability are absolutely essentials in successfully carrying on the business of producing and selling transportation; and only through the closest understanding and harmony between the producing and the sales departments of our railroad can these essentials be permanently assured.

The general business methods of this country have undergone a profound change in recent years, and particularly since the War, which has a most important bearing upon selling transportation. It was once the custom of merchants and manufacturers everywhere to carry large reserve stocks of products. While that was the case, ordinary delays in freight movement were frequently not serious.

At the present time, however, merchants and manufacturers have learned the lesson that unsold stocks mean idle capital and that idle capital eats up interest without corresponding return. Consequently the rule to-day, in commerce of nearly all forms, is to keep stocks at the very lowest possible level and conduct the business on the "hand to mouth" principle. Under that method of merchandising it is quite obvious that promptness and dependability of freight service become absolute essentials.

The Shipper's "Transportation Ledger"

The length of time in transit is also important, in addition to dependability. In our great manufacturing and merchandising enterprises of the present time every detail of cost is watched with hawk-like eyes. Even the matter of interest on the value of products in transit receives attention, and this does not seem unreasonable when we remember that very large concerns have thousands, perhaps at times millions of dollars worth of commodities and merchandise moving from place to place on railroad cars

A difference of two days or even one day in the average time such merchandise is in transit, amounts, in the course of a year, to very considerable sums of money which under present day methods of business no executive can afford to disregard. Hence, the dependability of freight movement, as well as speed, is a vital factor today in transportation sales.

Every big shipper of today, and many a little one also, is keeping what I like to call a "transportation ledger." On the credit side he enters such matters as rate differences, if any, courtesy and satisfaction in personal attention, and excellence and dependability of road service. The items he enters on the debit side are inability to compete in rates, lack of personal courtesy and satisfaction, and failures and defects in road service.

The true policy of salesmanship is to bring about such a degree of faithful team work and harmony between the Operating and Traffic Departments as always to keep a substantial balance in our favor on the credit side of our patrons' transportation ledgers.

I have endeavored to show that the production of transportation is really a manufacturing process, and that it has for its object

Prompt and careful handling of baggage helps to sell transportation service

the turning out of something which has to be sold. In reality the railroad organization very closely resembles the force of an immense industrial plant working under modern conditions of quantity production.

Joint Product of Over 200,000 Workers

We all know that in the present-day industries no one workman makes a complete product. That is just as true of railroading as it is of building an automobile. We have more than 200,000 workers on this railroad system and not any of them, not even any 100 of them, ever renders a complete unit of consumable transportation service.

When a man travels on the Broadway Limited from New York to Chicago, or ships a carload of freight from St. Louis to Philadelphia, it is literally true that the work and efforts of the hands and brains of many thousands of men have been concentrated upon rendering such form of service possible and actually carrying it out. And what is equally true, practically every one of us on this railroad, no matter what his job, has something to do not only with producing service but with selling it.

When we procure a passenger for one of our long distance limited trains, where there may be several other competing routes open, not all of the selling is done at the ticket window. That particular unit of transportation may have been "sold" to that particular patron by the conductor and crew of the train on which he commutes daily between his home and office.

Again, it may be in part traceable to a gateman whom the patron sees daily, or to the good salesmanship of the local ticket agent at his suburban station.

I do not doubt that red-cap porters have helped to bring us business many times through courtesy and efficiency in such a seemingly trivial thing as carrying a handbag a few hundred feet; and I am equally certain that discourtesy on the part of these men could lose us a great deal of traffic.

The track foreman and the laborer under him probably do not think of themselves as salesmen of railroad service. But when they furnish a superior line and surface of the track and a smooth ride on one journey, that may be the means of selling another trip and doubtless often is. Conversely, a rough ride may turn a passenger to a rival road for his next journey.

Conductors and other trainmen meet thousands of our patrons every day, and perhaps, with the possible exception of station agents, can do as much on a large scale by personal contact to make loyal friends and satisfied patrons as any other group of men.

Enginemen and firemen are not so often in personal contact with passengers, but by care in such matters as smooth starting and stopping and less smoke, they can play their part, and a very valuable one, in our sales campaigns.

I might enumerate many other examples. For instance, our dining cars are run primarily not for profit directly derived from them, but

to sell our train service to patrons. The opportunities of dining car stewards, cooks and waiters to gain friends and permanent patrons are so obvious as scarcely to need mention.

Yard and switching crews and forces can help by having the trains and engines ready promptly at terminals and connecting points, and in serving industries; the repairshop forces, by avoiding engine and other equipment failures; car cleaners, by having the interior of coaches pleasant and inviting; and, last, but by no means least, the clerical forces, through neatness and accuracy in correspondence and pleasant telephone contact which establishes daily touch with thousands of patrons.

What the P. R. R. "Keystone" Means

In fact as I said before, transportation service is never the production of one man or a few men or a small group of men. It invariably is the combined output of this great army made up from the employes of our railroad system, whose individual contributions to quality of service of every description and satisfaction in personal contacts play their full part to help in the successful selling of our Company's output.

Finally, let me call your attention to the Keystone which forms our Company's emblem. It typifies strength and union and absolute dependability, because it is the central stone in the arch which holds all the others in their places. It is the symbol both of the highest excellence of service and of that spirit of team work which makes such excellence possible.

So I can sum up in one word the true nature of the relationship between the Traffic and Operating Departments of our railroad, and that word is "co-operation." Let us put it in effect, strongly and faithfully.

HELPING THE TRACK FORCES TO BETTER WORK

Gasoline Cars for Track Gangs Replacing the Old-time "Hand Car" on the Railroad

STUDIES are being made by the Pennsylvania Railroad with a view to motorizing, as far as possible, all the forces engaged in the maintenance and repair of tracks.

According to data just compiled in connection with this investigation, the use of motor cars instead of hand cars for transporting section gangs from place to place has proved so successful on the Pennsylvania Railroad that about 1000 motor cars are now in service and about 1500 hand cars formerly used have been withdrawn.

The purpose of the Pennsylvania Railroad's study of the subject is to determine the most efficient and economical length of track under varying conditions which can be maintained by section gangs which themselves vary from six to fifteen men in charge of a track foreman. Among the factors to be considered are the number of tracks, sidings, switches, etc. It is realized, of course, that owing to the frequency of trains on four, six and eight-track portions of main lines there are limitations to the use of motor cars on these subdivisions which must necessarily be short in order that they may be maintained at a high standard.

The motorizing of track forces began on the Pennsylvania Railroad several years ago, but it is only recently that it has been extended over the entire System. The advan-

MOTORING TO WORK

tage to be gained is that men are employed in larger gangs, which enables them to handle the heavy materials used in railway repairs with less effort and inconvenience. It economizes in time and labor by getting the men to and from work in better physical condition than they would be after pumping a handcar for a considerable distance against adverse winds and grades. It has also been found popular with laboring men and has assisted in recruiting better men for track work on sections which are motorized.

Thus far the Pennsylvania Railroad has reduced the number of sections by 215, combining them with other sections into longer subdivisions. In the Eastern Region 117 subdivisions have been eliminated; in the Central Region 34; in the Southwestern Region 80, and in the Northwestern Region 41.

In addition to substituting motor cars for hand cars in track maintenance, motor cars are also being assigned to extra gangs, telegraph and signal maintainers, bridge inspectors and supervisors, thus enabling them to cover a greater territory.

Note the adjective "Central" in the name of the Pennsylvania Railroad. This is the first official document which has been discovered bearing that title.

Use of the Name Pennsylvania "Central" Railroad

IN AN article published in the September, 1924, issue of "Information," entitled, "The 'Official Family' of an Earlier Day," reference was made to the fact that in popular usage the Pennsylvania was often known in former days as the Pennsylvania "Central" Railroad.

Mr. Samuel Rea, President, was interested to know whether the name had ever received any official sanction, and at his direction a search has been made. It was discovered that the word "Central" had been used on the cardboard checks which conductors placed in the hats of passengers, or on the seats before them, to show that their tickets had been taken; but until recently no official document or paper had been discovered with the word "Central" in the Railroad's title.

A short time ago, however, Mr. Rea's attention was called to the old annual pass which is photographed above. It was issued, good for the year 1865, to "Will" A. Patton, better known today as Mr. William A. Patton, retired Assistant to the President of the Pennsylvania Railroad. The pass bears the initials E. H. W. (Dr. Edward H. Williams), who validated it for General Superintendent Enoch Lewis, whose facsimile signature is printed on the pass.

Mr. Rea has written the following comment upon the use of the word "Central" on this document:

"Whether passes were issued earlier than 1865, bearing the word 'Central,' we have not yet been able to ascertain, but Mr. Patton advises that the designation was abandoned after that year. He has also furnished the additional information that the Pennsylvania Railroad had a Western Passenger Agent at Chicago, William H. Holmes, who insisted upon using the term 'Central' in his literature, presumably as an attractive feature for securing passenger traffic.

"Doubtless Mr. Holmes' purpose in coupling the word 'Central' with the name 'Pennsylvania' was to offset the use of the same word in the title of the New York Central Railroad. The latter reason probably accounts more forcibly than any other for the formerly quite general use, in popular speech and writing, of the term Pennsylvania 'Central' Railroad, which was never at any time the correct corporate name of the Pennsylvania Railroad or any company associated with it."

$36,381,892 in Pensions to Retired P. R. R. Employes

Results of First Quarter Century of the "Roll of Honor." $4,194,023 Paid Last Year

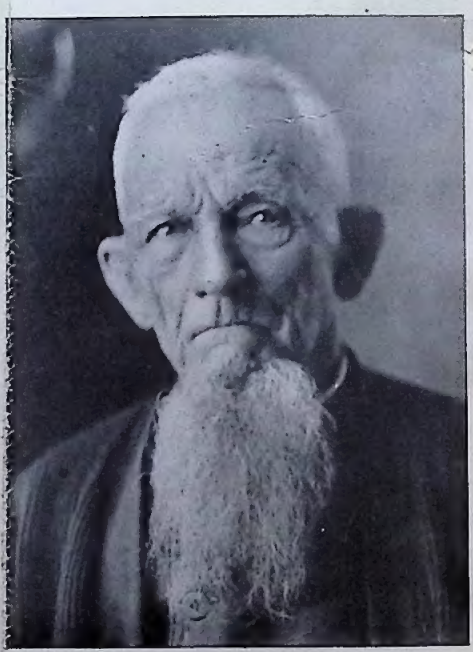
PENSIONS amounting to $4,194,023 were paid to retired employes of the Pennsylvania Railroad System in 1924, under the Company's pension plan. This is shown in figures now under preparation for the Pension Department's annual report. During the year, 1259 workers were retired from active service and placed upon the "Roll of Honor." With the single exception of 1921 those were the heaviest retirements since the pension system became operative.

The year 1924 rounded out a full quarter century of operation under the Company's pension and retirement provisions, which were first placed in effect on January 1st, 1900. In the 25 years ensuing the total payments amounted to $36,381,892.41. Altogether 17,665 employes were retired from active duty and placed on the pension rolls. Of these 9,731 had died, while 7,934 were still living and receiving pensions at the opening of the present year.

Of the 1259 workers retired during 1924 there were 106 who had served the Company 50 years or more, while 697, or over 55%, had been in the service at least 40 years prior to retirement. Included among those added to the Company's Roll of Honor last year were seven women.

Of the employes retired in 1924 the longest record of active service was held by Thomas J. Masterson, Engineman on the Pittsburgh Division, who completed 57 years and six months of active work. Mr. Masterson is living at 1907 Union Ave., Altoona, Pa. The second longest record was held by William Holsberger, Helper on the Philadelphia Division, who had 56 years and four months of service to his credit. He makes his residence at 1812 N. Cameron St., Harrisburg, Pa. The third longest record was that of John E. Foley, Division Operator on the Richmond Division, who had rounded out 55 years and six months of service at his retirement. He is living at Richmond, Ind.

The oldest Pennsylvania Railroad pensioner now living is George J. Beebe, formerly Watchman on the Elmira Division. Mr. Beebe is



GEORGE J. BEEBE
Oldest Pensioner of the Pennsylvania Railroad

99 years old and was retired January 1st, 1900. He is living at Breesport, N. Y. The second oldest is Thomas Gallagher, formerly Porter on the Long Island Railroad, who was retired April 1st, 1908, and is now 97 years old. He lives at 55 5th St., Long Island City. The third oldest is Robert Elsey, formerly Fuel Laborer on the Maryland Division. He was retired January 1st, 1900, and is now living at 125 East Minor St., West Chester, Pa., aged 96 years and seven months. There are altogether 35 employes on the pension rolls who are 90 years or more of age.

Included on the pension rolls are 60 women. The oldest woman pensioner is Mrs. Catherine Price, formerly Cleaner on the Baltimore Division, who lives at 2126 Druid Hill Ave., Baltimore, Md., and is 89 years and nine months old.